

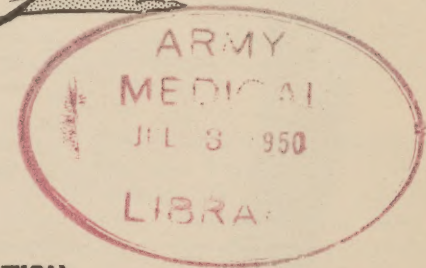
W2
A2
φ F219s

RESTRICTED

(DOCUMENT SECTION)

MED. SEC. GHQ. FEC.

VOL V NO 6
1 JUN 1950



A FAR EAST PERIODICAL OF MEDICAL DEPARTMENT INFORMATION

SURGEON'S CIRCULAR LETTER

RESTRICTED

Organization of the Medical Section, GHQ, FEC

The following is a list of commissioned personnel currently assigned to the Medical Section:

Major General Edgar Erskine Hume
Colonel Richard H. Eckhardt, MC
Lt. Col. Robert E. Selwyn, MSC

Chief Surgeon
Deputy Surgeon
Executive Officer

ADMINISTRATIVE DIVISION

Capt. John W. Barr, MSC
WOJG Ernie L. Barker

Chief
Chief Clerk

PLANS AND OPERATIONS DIVISION

Major H. E. Archer, MSC
Major Vincent I. Hack, MSC

Chief
Chief, Publications and
Editorial Br.

SUPPLY AND FISCAL DIVISION

Lt. Col. E. W. Partin, MSC
Capt. Richard M. Stacey, MSC

Chief
Ass't Chief

PERSONNEL DIVISION

Lt. Col. Charles Raulerson, MSC
Capt. Vernon H. Loisel, MSC

Chief
Ass't Chief

CONSULTANTS DIVISION

Colonel Irby J. Pollard, VC
Colonel Francis W. Pruitt, MC
Lt. Col. Arthur P. Long, MC
Lt. Col. Harlan H. Taylor, MC
Lt. Col. Alice M. Gritsavage, ANC
Capt. E. T. Brown, MSC

Veterinary
Medical
Preventive Medicine
Surgical
Chief Nurse
Medical Statistics Off.

DENTAL SURGEON

Colonel Harold G. Ott, DC

RESTRICTED

GENERAL HEADQUARTERS
FAR EAST COMMAND
MEDICAL SECTION

SURGEON'S CIRCULAR LETTER

APC 500

NO. 6

1 June 1950

PART I

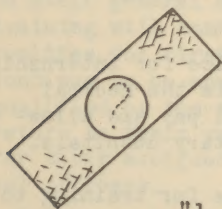
ADMINISTRATIVE

<u>SUBJECT</u>	<u>SECTION</u>	<u>PAGE</u>
Organization of the Medical Section.	I	1
Investigation of Deaths.	II	1
Army Civilian Intern Program	III	2
Uniform Standards Established for Medical Corps Officers Participating in the Intern and Residency Training Programs	IV	2
Reduction in Training Programs	V	3
The Control of Communicable Diseases	VI	4
Heads Dental Division.	VII	4
Reserve Officer Volunteers for Duty at Leper Colony.	VIII	4
Army Medical Department Hospital Management Program.	IX	5
Scientists Discuss New Building Plans.	X	5
Recent Department of the Army and FEC Publications	XI	5
Index.	Inside Back Cover	

I. Organization of the Medical Section

Departure from the Medical Section, GHQ, FEC: Major Kermit E. Jones, MSC, Sanitary Engineer and Major Glenn C. Irving, MSC, Assistant Chief, Supply and Fiscal Division, have completed their overseas tours of duty and returned to the ZI for reassignment.

II. Investigation of Deaths



The following information was disseminated to officers who are appointed to investigate deaths. However, it is desired that the Medical Department officer responsible for the preparation and shipment of the specimens to the 406th Medical General Laboratory, Tokyo, Japan, maintain close liaison with the investigating officer to assure that the provisions of the cited circular are complied with.

"1. Information available in this headquarters indicates that some investigating officers are not familiar with the provisions of paragraph 8a(2)(b), General Headquarters, Far East Command, Circular 5, dated 11 February 1950, in that they are not furnishing the pathologist who performs the autopsy a statement concerning the circumstances surrounding death. Letters and follow-up letters have gone unanswered and as a result a clear interpretation of the autopsy reports cannot be completed.

"2. Your attention is invited to paragraph 8a(2)(b), General Headquarters, Far East Command, Circular 5, dated 11 February 1950, subject: Medical General Laboratory Service, which is quoted below:

'8a(2)(b). Circumstances surrounding death. If the death occurred outside of a hospital a statement concerning the circumstances surrounding death will be prepared by the investigating officer and submitted to the pathologist for inclusion in the protocol in lieu of the clinical abstract. This statement will include the opinion of the officer as to whether death was due to disease, accident, suicide, or homicide'."

RESTRICTED

III. Army Civilian Intern Program - DA, SGO, Technical Information Office, Washington 25, D.C.

A number of positions are still available in the Army Medical Department's civilian intern program, according to an announcement from the Army Medical Department.

The recent adoption of uniform service standards for medical interns in the Armed Forces makes no change in the Army program. Service standards are:

- (1) Army internship served in a military hospital; one year of further active duty in addition to each year of internship
- (2) Army internship served in a civilian hospital; two years of further active duty in addition to one year of internship.

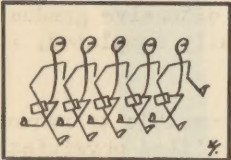
To be eligible for this year's program, a candidate must be a potential graduate who will begin an internship during 1950, and must have been accepted for internship training in a civilian hospital acceptable to the Surgeon General.

Individuals who previously submitted applications for internship in an Army hospital and who were not tendered appointments may apply for the civilian program simply by completing two short forms. A new physical examination will not be required at this time.

New applicants must file the complete set of forms, which may be obtained at any medical ROTC office or directly from the Surgeon General of the Army.

Army interns in civilian hospitals must satisfactorily complete eight months of internship to become eligible to participate in the professional examinations leading to appointment in the Regular Army.

IV. Uniform Standards Established for Medical Corps Officers Participating in the Intern and Residency Training Programs



The Department of Defense has established uniform standards for participation in the intern and residency training programs for physicians of the Army, Navy and Air Force.

The new rules do not apply to medical officers already receiving intern or residency training under the military programs, or to those whose applications for commissions were accepted before 10 March.

Medical school graduates may apply to the military service of their choice for internship training under the military program. If accepted, they are tendered commissions in the Medical Corps Reserve of the service selected and placed on extended active duty with full pay and allowances during the internship. Training may be received in either civilian or military hospitals.

Internship programs are limited to persons who in their written requests for training to serve minimum periods of active duty after completing their training. For one year of military internship in a military hospital (effective with internships starting 1 January 1951), two years of active duty are required for one year of internship, and four years of active duty for a two-year internship. The officer must serve three years on active duty for one year of military internship served in a civilian hospital.

Interns in these programs must complete eight months of intern training before being permitted to take examinations for appointment in the regular military establishment.

Only medical officers of a regular service are eligible for residency training under the military programs. They may compete for appointment under a schedule of priorities which give first preference to officers having two or more years of commissioned service, exclusive of internship. Successively lower priorities are assigned to officers with shorter periods of service and to armed forces interns in military and civilian hospitals.

Individuals participating in the residency programs must agree to serve minimum periods of active duty in the armed services following completion of training. The minimums for military residency in military hospitals are four years of active duty for two years of residency and six

years of active duty for three years of residency. Four courses of military residency in a civilian school or hospital minimum active-duty service is: three years for two years of residency; five years for two years of residency, and seven years for a three-year residency.

All periods of volunteer active duty above include the time spent in intern or residency training. Active duty for which a medical officer has volunteered under the intern and residency programs, respectively, are separate periods and may not be served concurrently. But those completing internships and found acceptance for a military residency may be authorized to serve the entire amount of volunteer duty after completing the resident training.

V. Reduction in Training Programs - DA, SGO, Technical Information Office, Washington 25, D.C.



A drastic cut in intern and residency training programs to be effected without endangering professional standards in Medical Department operation was announced recently by Major General Raymond W. Bliss, Army Surgeon General.

"The curtailment is now possible as a natural culmination of rising professional standards and long range planning," General Bliss said. "I believe this action will be gratifying to American medicine in general because of a fear that the Army was committed to a program of over-specialization."

The reduction in intern and residency programs has no bearing on the recent closing of military hospitals but grows out of a long study of the Army's personnel needs.

The original graduate program was established with the assistance of the American Medical Association and other medical advisory groups with the goal of training 30% of the Army Medical Corps as specialists. This quota was the same as that of the British Army and comparable to the American medical profession as a whole.

Immediately after the close of the war, with the release of the many clinical specialists who were temporary officers, the Medical Department had only a handful of qualified Regular Army officers remaining. Since this number was far too small to meet requirements, an extensive graduate training program was necessary. With the initial phase of this program substantially completed, it is now possible to reduce the numbers in training.

A careful analysis of the Army's requirements for specialists makes it possible to reduce the residency programs in many specialties and at the same time provide better qualified physicians to staff general and station hospitals. In this regard, it was emphasized that fine professional training will continue to be available in the Army Medical Department. There will still be opportunities for first year residencies in military hospitals to fill normal attrition. There will continue to be spaces in second and third year residency training for those students found best qualified by the residency selection board. Residents scheduled for temporary overseas duty will return to their residencies. In addition, the training programs now maintained at all hospitals for their assigned personnel will continue to afford excellent professional training for all medical officers.

The professional training programs involved include civilian and military internships and residencies. Training in the civilian programs are accomplished at civilian institutions with a commitment for military service following completion of training. In the military programs, students receive their training in recognized Army general hospital teaching centers.

The following reductions will be effected:

- Civilian internships - a reduction from 300 to 200 by 1 July 1950.
- Civilian residencies - no new residents have been accepted since 1 January 1950, and the program will close by attrition.
- Military internships - a reduction from 199 to 150 by 1 July 1951.
- Military residencies - a reduction of almost 50% or a total of 245 by 1 July 1951, including a recent slash of 131 residencies, another 36 by 1 July 1950 and an additional 66 by 1 July 1951.

A sizable reduction in the military residency program has been made possible by comparing actual requirements in each medical specialty with the number actually on duty or expected to com-

plete residency training. The resultant quotas recognize both the importance of the Army Medical Department having an adequate supply of specialists to meet its needs and the undesirability of over specialization.

As a result of this analysis it will be possible to reduce spaces in urology, anesthesiology, general surgery, orthopedics, ophthalmology, otolaryngology, dermatology, medicine, pathology, radiology, plastic surgery and physical medicine. Increased spaces will be provided for psychiatry and clinical medicine (general practice).

The resident selection committee in the Surgeon General's Office will continue to select residents for one year appointments and to advance those who are best qualified.

General Bliss indicated that the streamlining of the residency program might make the eventual consolidation of teaching centers possible with all residency training conducted in centers with the best facilities, clinical material and professional supervision.

VI. The Control of Communicable Diseases



The Control of Communicable Diseases, 7th edition, American Public Health Association, was recently added to the List of Recommended Books for the Army Medical Department. One copy of this handbook will be issued to each medical officer. All installations and headquarters should obtain the necessary number of copies of this book in order that all medical officers may receive their copy at the earliest possible date¹. Additional copies are recommended for reference in headquarters offices and in medical libraries.

This new edition has been brought up to date by the Subcommittee on Communicable Disease Control of the Committee on Research and Standards of the American Public Health Association. The previous editions have long been accepted as an official statement of acceptable procedure by the Public Health Service. The present edition continues to carry this recognition and in addition has been accepted by several foreign countries. It has been approved in principle by the Surgeons General of the Army, Navy and Air Force. As such it may be used for definition of accepted communicable disease control procedures where specific instructions are omitted in official Army publications.

Most medical officers believe they thoroughly understand the methods of controlling the spread of disease. Usually, however, when demands are made for this knowledge they find it to be vague and out of date. This fact is not recognized until the officer is suddenly called on to give his recommendations for the control of a disease encountered during military operation in an area foreign to him. When instances of this type occur a reference book is most welcome and often the least accessible. Since The Control of Communicable Diseases, is small in size, can be carried anywhere and gives all the salient information required in outline form it readily fulfills the need in these unusual situations. The medical officer who is conscious of his preventive medicine responsibilities will have occasion to use the book almost daily whether he is assigned to a hospital, staff, or field position.

¹ED'S NOTE: Requisition may be made by each major command direct to the San Francisco Port of Embarkation.

VII. Heads Dental Division

Major General Walter D. Love has been appointed chief of the Dental Division in the Office of the Army Surgeon General.

VIII. Reserve Officer Volunteers for Duty at Leper Colony

Lt. (jg) Gordon C. McNeilly, MC, USNR, who had been on active duty in the Medical Corps Naval Reserve from October 1944 until July 1946, is being recalled to active duty at his own request for duty as Officer-in-Charge of the Provisional Leper Colony of the Trust Territories of the Pacific,

Tinian Island, Marianas. He will relieve Lt. (jg) Jack W. Millar, MC, USN, who was the first Naval medical officer assigned to the Leper Colony.

Before his departure from the States, Dr. McNeilly will receive special training at the National Leprosarium, U. S. Marine Hospital, Carville, Louisiana, and at the Territorial Leprosarium, Molokai Island, T.H.

The Tinian Leprosarium, established to provide modern treatment for all leprous patients from the islands of the Trust Territory, has been in operation since September 7, 1948. Starting with 53 patients the institution now cares for approximately 100, including five children. The staff consists of one Naval medical officer, one warrant officer, four hospital corpsmen, three locally trained native nurses and two native male aides.

IX. Army Medical Department Hospital Management Program



The 125-bed station hospital at Fort Meade, Maryland, has been selected as the testing laboratory for the second phase of the Army Medical Department's program for the application of scientific management principles to hospital operations. The first phase was at the Valley Forge General Hospital at Phoenixville, Pa., where principles and methods developed for general hospitals were involved.

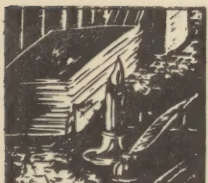
The aim of the experiment at Fort Meade is to develop similar improvements in the operations of smaller hospitals. It is expected that small-type installations will present many new problems requiring different approaches.

X. Scientists Discuss New Building Plans

Plans for a new Armed Forces Institute of Pathology building to be erected at the Army Medical Center, Washington, D.C., were discussed at a recent meeting of the Institute's Scientific Advisory Board.

Members of the Board were joined in the discussion by representatives of the Army, headed by the Surgeon General, Maj. Gen. R. W. Bliss; the Navy, led by Rear Adm. Arthur Greaves, Military Sea Transport Service; and the Air Force, Col. John F. Dominick attended for the last-named department.

XI. Recent Department of the Army and FEC Publications



AR 40-100, 13 Apr 50, C-8 - Miscellaneous Physical Examination

AR 145-120, 26 Apr 50 - Physical Standards and Examination

AR 40-950, 27 Apr 50, C-1 - Veterinary Meat and Dairy Hygiene - General

SR 350-110-10, 30 Mar 50 - Common Subjects, Branch Advanced Course, School Year 1950-51

SR 135-210-1, 13 Apr 50 - Entry on Extended Active Duty

SR 605-60-43, 26 Apr 50, C-1 - Medical Officer Procurement - Professional Training Programs

GO 14, 20 Apr 50 - Selected Lists of Officers of Army, Medical Corps, Dental Corps, Veterinary Corps, Medical Service Corps, and Chaplains. For Promotion to Temporary Grade of Colonel

TM 8-270, Apr 50 - Professional Nursing Techniques

Training Circular 6, 7 Apr 50 - Neuropsychiatric Casualties

GHQ FEC CIR 26, 18 May 50 - Venereal Disease Control

PART II

TECHNICAL

SUBJECT	SECTION	PAGE
Recommended Practices for the Control of Poliomyelitis.	XII	6
Rabies, The Physician's Dilemma	XIII	8
Eosinophilic Granuloma of the Rib	XIV	10
How Long Must the Patient with Viral Hepatitis Remain in Bed.	XV	12
Trematode Infection (Paragonimus westermani).	XVI	12
Epidermolysis Bullosa	XVII	13
Antepartum Hemorrhage	XVIII	14
The Giant African Snail	XIX	15
Scrub Typhus.	XX	17

XII. Recommended Practices for the Control of Poliomyelitis*

THE DISEASE



1. Recognition of the disease: A highly prevalent infection of which only a small fraction of the cases is clinically identifiable. In its recognizable form an acute illness, usually febrile, with early varying symptomatology, but usually with headache and almost always a characteristic stiffness of neck and spine that justifies an examination of spinal fluid. In about half such cases

a lower neurone paralysis develops in first few days of illness which shows a marked tendency for spontaneous improvement after it has reached its height. If first seen after acute stage has passed, diagnosis depends upon detection of a flaccid paralysis characteristically irregular in its involvement of muscle or muscle groups. Diagnosis in non-paralytic cases depends upon detection of a clinical picture compatible with the illness plus demonstration of moderate increase in cells in spinal fluid. A form of illness presumptively poliomyelitis (abortive) presenting only vague symptoms and without signs referable to the central nervous system is of frequent occurrence during epidemics.

2. Etiologic agent: The poliomyelitis virus. Several immunologically distinct types have been identified.

3. Source of infection: Pharyngeal and fecal discharges of infected persons, frequently those not suffering from a clinically recognized attack of the disease.

4. Mode of transmission: Close association with infected persons accounts for the great majority of cases. Outbreaks attributable to milk have been rare and limited. Although flies have been found to be contaminated with the virus, there has been no reliable evidence of spread by insects, water, food or sewage.

5. Incubation period: Usually 7 to 14 days. (May be from 3 to 35 days)

6. Period of communicability: Apparently the period of greatest communicability is covered by the latter part of the incubation period and the first week of the acute illness.

7. Susceptibility and immunity: Susceptibility to infection is general. Immunity is acquired by infection which may have been clinically inapparent. The duration of immunity is unknown, but second attacks are rare.

8. Prevalence: Infection is prevalent throughout the world. Paralytic cases have been apparently more frequent in the temperate zones. Occurs both sporadically and in epidemics at irregular intervals, with the highest incidence in summer and early fall. In the United States an annual incidence of 10 paralytic cases per 100,000 population is ordinary, but there is a wide variation in

(* ED'S NOTE: The recommendations for the control of poliomyelitis presented in this article are almost in their entirety those formulated by a conference of authorities on the subject meeting in the summer of 1949 at the request of the National Foundation for Infantile Paralysis. The recommendations of that group published in the American Journal of Public Health, Vol. 39, No. 9, for September 1949, have been modified only slightly here in the interests of conformity with military application in the Far East Command. These recommendations are considered to be compatible with existing policies as presented in AR 40-210 and TB MED 193 and are presented for supplementary information and guidance.)

incidence from year to year and region to region. Children from 1 to 16 years of age are more frequently attacked than adults. In several countries including the United States, older children and young adults constitute a higher proportion of reported cases than formerly. Even during epidemics the incidence of paralytic cases has rarely exceeded one per thousand population.

9. Methods of control:

A. Preventive measures: None.

B. The infected individual, contacts and environment:

(1) Recognition of the disease and reporting: Clinical manifestations assisted by microscopic and chemical examination of the spinal fluid if lumbar puncture is performed. In reporting, paralytic or non-paralytic should be specified. A clear separation between these two groups of cases as reported permits a closer comparison of incidence between localities and with past experience.

(2) Isolation: For one week from date of onset, or duration of fever if longer.

(3) Concurrent disinfection: Nose and throat discharges and feces are infectious and should be disposed of as quickly and safely as possible. Articles soiled therewith should be promptly disinfected.

(4) Terminal disinfection: None.

(5) Quarantine: Quarantine of unproven value.

(6) Active immunization: None. Passive immunization is not recommended.

(7) Investigation of sources of infection: Search for and expert diagnosis of sick children to locate unrecognized and unreported cases of the disease.

C. Epidemic measures:

(1) Isolation in bed of all children with fever, pending diagnosis.

(2) Education in such technique of bedside nursing as will prevent distribution of infectious discharges to others from patients isolated at home.

(3) Protection of children so far as practicable against unnecessary contact with persons other than their usual associates.

(4) Postponement of elective nose or throat operations or dental extractions.

(5) Avoidance of excessive physical strain (e.g., violent exercise) in children during an epidemic or in case of known exposure.

(6) Avoidance of unnecessary travel and visiting, especially of children, during high prevalence of the infection.

D. International measures: None.

THE PATIENT

1. Reporting: All obvious and suspect cases should be promptly reported. As soon as possible all of these cases should be classified as paralytic or non-paralytic. Cases which are finally diagnosed as presumptive (abortive) poliomyelitis should not be included in the final tabulation of cases. Diagnostic criteria of paralytic or non-paralytic poliomyelitis should generally include three or more of the following:

(1) history compatible with poliomyelitis

(2) fever

(3) stiff neck and/or stiff back

(4) 10 to 500 cells per ml. of spinal fluid taken during the acute or early convalescent period of the disease

(5) spinal fluid protein elevated above normal limits

(6) demonstrable muscle weakness or paralysis

Cases which present only (1) history compatible with poliomyelitis, and (2) fever, should be classified as presumptive (abortive) poliomyelitis. Paralytic cases are defined as those in which definite weakness or paralysis has been detected and persisted during at least two examinations with an interval of at least several hours. Results of an examination for paralysis of muscles of the extremities or trunk may be very unreliable during the period of muscle tenderness or "spasm."

2. Hospitalization:

A. Admission to hospitals: Patients with acute poliomyelitis, or presumed to have acute poliomyelitis, are admissible to a hospital provided that appropriate isolation precautions are employed. No special isolation or "pest" facilities are necessary.

B. Nursing Care: During isolation, or hospitalization after the period of isolation, there is no need for a special duty nurse for each patient. Special duty nurses should be employed with regard only to the medical condition of the patient, and to the number of patients they can properly handle.

C. Isolation technique in hospitals: The isolation procedures used for the care of acute poliomyelitis patients are similar to techniques used in the hospital care of other communicable diseases, namely:

- (1) Segregation of patients having the same disease, preferably in single rooms or small wards. Patients can be cared for in large wards.
 - (2) Washing of linen in the hospital laundry. Ordinary precautions for handling articles from infected persons are sufficient.
 - (3) Sterilization of eating utensils after use.
 - (4) Availability of toilets or hoppers in each room, small ward or large ward.
 - (5) Availability of hand washing facilities in each room, small ward or large ward.
 - (6) Use of gowns by physicians when examining a patient and by nurses when caring for a patient, particularly while bedpanning.
 - (7) Disposal of excreta of patients by placing in toilet or hopper as soon after passage as possible. The bed pan should be washed out if the utensil is used for a single patient, but when used in wards bed pans should be sterilized each time the utensil is used. No special treatment of feces from polio patients is necessary.
 - (8) Hand washing with ordinary soap and water should be practised following examination of patients and after bedpanning a patient. When toilet or hopper is situated outside the room or ward, a single pan should be covered, carried out and contents disposed of as above (7); multiple pans are best cared for by placing on a cart and transferred to the disposal unit and taken care of as above (7).
- D. Care of suspect cases: It is recommended that suspect cases when admitted to a hospital should be segregated when possible from known cases until the diagnosis has been established or the patient is discharged as well.
- E. Transportation of patients. Transportation of patients may be carried out under proper conditions, such as transportation in an ambulance or a private vehicle. A common carrier should not be used. No special treatment of ambulances or other vehicles after their use by polio patients is necessary.

THE COMMUNITY

These recommendations were formulated with the emphasis on avoiding the possible effect of disturbing or altering unnecessarily the normal pattern of life in the community. Whatever is done to upset the usual routine of children in a household or adults in their occupations is likely to bring more trouble than good.

1. Schools: Recommendation: Public and private schools should not be closed during an outbreak of poliomyelitis, nor their opening delayed except in special circumstances. Reason: The closing of schools, or the delay of their opening, has not affected the course of outbreaks of poliomyelitis; moreover, such action has often resulted in panic on the part of the public. Nursery schools may be continued or closed depending upon the particular circumstances. Parents, if both are employed, may prefer to send their children to a nursery school. Parents who have facilities at home to limit contacts of young children with other children should be encouraged to keep pre-schoolers at home.

2. Places of recreation and amusement: It is recommended that no action be taken to close or prevent the operation of places of recreation or amusement, such as fairs, circuses, theaters, swimming pools, or beaches, provided these are properly operated. However, the attendance of children at such places should be discouraged during times of high prevalence of poliomyelitis. Any theoretical advantage that might be gained by closing such facilities is offset by the undesirable results of disruption of community life.

XIII. Rabies, The Physician's Dilemma*



For medical personnel in the Far East Command who may at some time or other be confronted with the problem of having to make a decision as to whether or not rabies treatment should be administered, the following abstract from an article by Dr. T. F. Sellers is considered to be an appropriate guide.

Every physician is faced with two responsibilities in the management of human exposures to rabies, be they real or imaginary. One is the relatively simple procedure of administering antirabic vaccine to persons whose exposure is a definite break through the skin made by the teeth of a known or suspected rabid animal. The second far greater responsibility is the psychologic problem of rabophobia whose victims far outnumber those actually in need of protection.

(* Sellers, T. F., Amer. Jour. of Trop. Med., 28:453 (May) 1948)

As very aptly stated by G. A. Denison and J. D. Dowling, in an article "Rabies in Birmingham, Alabama"(1), "there is no disease (other than rabies) about which the public is more misinformed. The fears, horrors and superstitions of exposed individuals, magnified by a superabundance of bad advice from well-meaning friends, often produce a state of mental panic before the physician can be reached. Circumstances of exposure so infinitely remote as to make the possibilities of infection ridiculous and unworthy of even momentary consideration often cause extreme mental anguish. Undue apprehension is probably as common a symptom among the many recently exposed persons as it is among the very few who develop the disease clinically. Under such circumstances, the individual is often unable or unwilling to accept medical advice and insists on vaccine treatment, while the physician, too, often fails to maintain a professional equilibrium and allows himself to be influenced by the undue apprehension of the patient."

It may be argued that if antirabic treatment is such an effective antidote for this state of undue apprehension, then its use is justified. Dr. Sellers, however, after thirty years of practical experience, believes that antirabic vaccine is not harmless and that it has caused more deaths than has rabies when given to persons only indirectly or remotely exposed.

Since 1925, the laboratories of the Georgia Department of Public Health have furnished treatment for more than 50,000 persons of which number 7 developed the serious complication of treatment paralysis (2). Of the 7 cases of treatment paralysis, it is interesting to note that:

- (1) Four terminated fatally.
- (2) Only two occurred in persons treated because they were actually bitten by rabid dogs.
- (3) Five were in persons only remotely exposed and were treated mainly to allay undue apprehension. Of these five, three died.
- (4) Five were in individuals who had previously received antirabic vaccine.

Of 32 post-treatment rabies fatalities occurring among the 50,000 treated persons, 19, or 60%, were bitten more or less severely on the face; 11, or 34%, were treated following bites on the hands and arms; one, or 3%, following bites on the lower extremities; and one, or 3%, following bites on the body. In no instance did rabies develop following superficial face wounds or exposures, such as claw scratches, licking, bruising, or even teeth scratches not deep enough to cause bleeding.

In the early years of his experience, Dr. Sellers states that his resistance to the pressure of undue apprehension was low but that his experience and observations prompt his practice of the thesis that rabies is transmissible to man only by direct inoculation of the infected saliva into the flesh deep enough to come into contact with nerve tissue. Most, if not all, situations of human exposure can be safely disposed of to the best interests of all concerned if the medical advisor will consider the following factors and apply them in determining course of procedure:

The first step is to consider the history of the offending animal. If the evidence falls within the following categories, then the animal should be considered as potentially infectious:

- (1) The animal is clinically rabid, even though the post-mortem brain examination fails to reveal Negri bodies.
- (2) The brain of the animal shows typical Negri bodies, even though the clinical behavior before death was not suggestive of rabies.
- (3) The animal disappears after biting, or cannot be definitely identified.
- (4) Any animal that bites without provocation and is immediately killed should be regarded as suspicious even though the laboratory findings are negative.

Having thus arrived at the conclusion that the animal in question is rabid or that rabies cannot be ruled out, the next step is to direct attention to the nature of the exposure and the need for antirabic treatment. Such treatment is indicated:

- (1) When there are visible wounds into or through the bare skin that were known or suspected to have been made by the teeth or claws of the animal.
- (2) When the wounds were inflicted through clothing which was torn by the teeth of the animal.
- (3) When there is reason to suspect that the wet saliva came in direct contact with fresh, open or raw pre-existent abrasions.
- (4) When the person exposed is a small child who has been in direct contact with the animal but who is too young to give reliable testimony.

Antirabic treatment is contraindicated:

- (1) When exposure is limited to contact of the saliva with the unbroken skin anywhere on the body, including the face or mouth.
- (2) If the saliva came in contact with pre-existent wounds which are known to be more than twenty-four hours old or which are covered with an unbroken scab.
- (3) If the teeth wounds are made through clothing which is not torn. Such wounds are usually bruises or due to friction from the cloth.
- (4) If the exposure is limited to:
 - a. Handling or petting the animal or of other animals with which the infected animal has been fighting.
 - b. Handling of objects contaminated with the saliva.
 - c. Drinking the milk of rabid cows or goats.
- (5) If the bite or scratches were inflicted not less than seven days prior to the detection of visible signs of the disease.
- (6) If the biting animal remains normal for as long as one week after biting.

Before administering treatment, the medical advisor should never fail to question as to previous treatment. Regardless of the elapsing interval since the last treatment, re-immunization should be avoided for borderline exposures, such as superficial wounds of the extremities. Retreatment should be limited in any case to a short booster series of five or six injections.

The physician will occasionally encounter situations or exposure which may not fall in with the categories as herein outlined; nor will he always be able to cope successfully with every case of undue apprehension. But above all, he should bear in mind that antirabic vaccine is not harmless and that the danger of treatment paralysis is far greater than of rabies in persons not bitten.

It is not hydrophobia but rather rabiphobia which constitutes the major and most troublesome problem to the practicing physician. The administration of antirabic vaccine to persons actually bitten or scratched by the teeth of known or suspected rabid animals is a relatively simple and justifiable procedure regardless of the outcome, in that the danger of the disease is far greater and more serious than any ill effects from the vaccine, but for exposures other than actual bites, the danger of treatment complications far exceeds that of either rabies or rabiphobia.

- REFERENCES: 1. Denison, G.A., and Dowling, J.D.: "Rabies in Birmingham, Alabama". J.A.M.A. 113, July 29, 1939
2. Sellers, T.F.: "Complications of Antirabic Treatment". J.Med.Assn. of Ga., Jan. 1947

XIV. Eosinophilic Granuloma of the Rib - Lt. Colonel Sanford W. French, III, MC, Chief Surgical Service, 118th Station Hospital, APO 24-5



Introduction:

Eosinophilic granuloma of the rib is not frequently encountered. No attempt will be made to review the literature on this subject due to the limited library facilities in this command.

Case Report:

The patient was a 21-year old white male who entered the hospital on 3 December 1949 complaining of pain in the left side of the chest of one month duration. At onset this pain was rather severe for about four days and was increased on deep breathing. Patient also stated that he had some pain in the left arm at this time. The pain in the left chest, which was associated with coryza, then practically disappeared and the patient became relatively asymptomatic. However, on 21 November 1949 a routine chest plate was taken in his local dispensary and a lesion of the left 5th rib was found. After a period of two weeks observation at his dispensary the patient was then sent to the 118th Station Hospital where he stated he had slight pain in the left chest and that he was unable to sleep on his left side. This pain was accentuated on inspiration but there was no cough or any other pulmonary symptoms. There was no history of trauma of any nature. Patient stated that he had lost about six pounds in the month prior to admission. Review of the systems was essentially negative.

On admission the patient appeared to be a well-nourished, well-developed, white male of the stated age. Temperature was 99 degrees, pulse rate 88 and respirations 18. Blood count: WBC 6,500 with 60% neutrophils, 36% lymphocytes, 2% monocytes, and 2% eosinophils. Hemoglobin 15.8 gm, sedimentation rate was 3, urinalysis negative, and serology negative. Chest plate revealed an area of osteolysis involving the left 5th rib in the posterior axillary line which measured about 4 x 2 cm. This area did not resemble an old fracture or osteomyelitis and appeared to be an osteolytic type of tumor. The remainder of the chest was reported as being negative. (Fig. 1) Patient was then given a complete work-up which included a skeletal survey intravenous pyelograms, serum calcium and serum phosphorous, all of which were of no value in establishing a diagnosis.

His clinical course in the hospital remained about the same as that on admission. About every other day there would be a slight elevation of temperature up to 99 or 99.4 degrees. His complaints remained the same.

Left thoracotomy was performed on 15 December 1949 with block resection of 15 cm of the left 5th rib beginning at the spine medially and extending out past the angle of the rib. This resection included the rib, intercostal muscles, and parietal pleura. The tumor was not broken into during operation. The wound was then closed with positive pressure being applied to the lungs. A post-operative film taken immediately after closure of the chest revealed no pneumothorax. The removed specimen was then opened and examined. The tumor measured about 5 cm in length and about 3 cm in width. The rib substance was completely lost in the area of the tumor and had been replaced by a somewhat circular, mustard colored, soft tissue tumor mass, which had the consistency of a sea sponge. It was quite obvious that a fracture at the tumor site could have occurred at any time as there was just a shell of the cortex remaining. Pathological report was eosinophilic granuloma.

Subsequent course:

Patient was given an intercostal block with 1% procaine posteriorly including the 3rd, 4th, 5th, 6th and 7th intercostal nerves immediately after closure of the chest and thereafter on the subsequent two days received two intercostal blocks daily. He was encouraged and made to cough and convalescence was uneventful. By 18 December, which was three days postoperative, the temperature had returned to normal and patient had no complaints. He was ambulated the night of surgery. A postoperative film taken on 19 December, which was four days postoperative, revealed both lungs to be completely expanded with no sign of pleural effusion. A film taken on 27 December, 12 days following operation, was reported "except for the previous resection of the left 5th rib, the chest is negative." (Fig. 2) Patient was discharged from the hospital completely asymptomatic on 4 January 1950.

Boyd (1) gives a clear, concise picture of this disease and its differential diagnosis:

"Eosinophilic Granuloma. - This rare condition is of importance because, while clinically and roentgenologically it closely resembles a malignant tumor of bone, it is benign and can be cured by operation or irradiation. The disease is characterized by the rapid appearance of a painful swelling in a bone, usually the skull, but sometimes a rib or a long bone, which may or may not be tender. The clinical condition has been mistaken for osteo-



FIG. 1: Arrows indicate the lesion of the left 5th rib in the posterior axillary line. Compare this rib with the one on the opposite side.



FIG. 2: Post-operative film of chest taken 12 days after left thoracotomy.

myelitis, tuberculosis, Ewing's tumor, and giant-cell tumor. It is a disease of childhood and early adult life, predominantly in males. There are no severe general symptoms, but there may be a considerable degree of eosinophilia. The gross lesion is soft, yellowish-grey, and expands the bone. Microscopically the lesion consists of large mononuclear cells with pale nuclei which can be classed as histiocytes, and large numbers of eosinophilic polymorphonuclears. The macrophages may contain ingested eosinophilic debris. If there has been destruction of fat there may be cholesterol crystals and giant-cell formation. In view of the fact that not every case presents eosinophils, an alternative name is solitary granuloma of bone. Recent work suggests that the condition should not be regarded as a nosological entity, but that it is in reality a monosymptomatic form of Schuller-Christian's disease (skeletal lipoid granulomatosis) that often heals without becoming generalized (Green and Farber, Holm et al.)."

REFERENCE: 1. Boyd, Wm., Surgical Pathology, 6th Edition, pg. 731-732

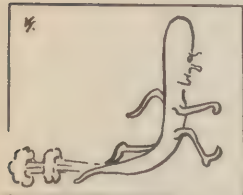
XV. How Long Must the Patient with Viral Hepatitis Remain in Bed? - Col. Robert E. Blount, MC



It is now felt that bed rest should be continued until (1) the jaundice has cleared up; (2) anorexia and nausea have disappeared; and (3) a sense of well-being has returned. Then, (4) after the jaundice has disappeared and (5) when there is less than 5% bromsulphalein retention after 45 minutes, the patient may usually be given a cautious trial of ambulation without undue risk. The thymol turbidity and flocculation tests are particularly apt to remain slightly elevated for weeks after all the other liver function studies have shown a return to normal. It is believed to be safe to try cautious ambulation for patients who meet the above five criteria, even though there is still some slight thymol turbidity elevation. The more severe, and the prolonged cases of viral hepatitis usually require evacuation to the zone of interior. The moderate and the mild cases can usually be returned to duty after a definite convalescence period.

Dr. Kleinfelter on his recent visit to the Far East Command expressed the conviction that in many cases the doctor by repeatedly palpating the patient's right upper quadrant in attempts to determine liver size and tenderness tends to fix the patient's attention on the liver and in susceptible patients may actually initiate an iatrogenic illness. Certainly the patient must be watched very carefully, both during the acute phase and during his convalescence. If there is any evidence of a relapse at any time of course therapy should be changed accordingly.

XVI. Trematode Infection (Paragonimus westermani) - Lt. (jg) N. F. Wyatt, MC, USN, Fleet Activities, Yokosuka, Japan



A 35-year old Chinese male appeared at the Naval Dispensary with a chief complaint of abdominal pain. The patient had enjoyed good health until the onset of his present attack, 24 hours previously. At that time, he noted the onset of moderately severe epigastric pain, localizing somewhat later in the right upper quadrant. The pain was described as aching in character. There was no other localization nor radiation. No jaundice, no acholic stools, nor dark urine had been observed. There were no respiratory symptoms. Bowel function, apparently was normal. The patient's past history was noteworthy in that he had never experienced previously any digestive complaints. No food intolerance had been present at any time. He did not complain of a chronic cough nor of frequent respiratory infections. The physical examination revealed a Chinese male, apparently in severe pain. The temperature was 98.6, the pulse 100, the respiration 16 and the blood pressure 122/78. No icterus was present. Examination of the eyes, ears, nose and throat were negative. Chest and heart were negative. There was no general glandular enlargement. The abdomen was moderately rigid. There was no generalized tenderness. His tenderness localized sharply in the right upper quadrant, in an area about five centimeters in diameter. Moderate pressure over this area caused the patient severe pain. Neither the liver, spleen nor kidneys could be palpated. No flank dullness could be elicited. The rectal examination was entirely negative. Initial laboratory procedures included a chest film, white count and smear, serum amylase, urinalysis, a flat film of the abdomen, and stool examinations. The white count was 15,450 with a decided shift to the left. A flat film of the abdomen showed no air under either diaphragm. Stool examinations were negative. The serum amylase was normal. The chest film revealed increased basilar markings. The patient's abdominal pain increased until morphine was required. Because of the elevated blood count,

generalized abdominal tenderness, and the localized tenderness in the right upper quadrant, it was deemed advisable to explore the abdomen by laparotomy. Spinal anaesthesia was employed. The abdomen revealed approximately 200 cc of clear fluid. The small intestine was oedematous and inflamed throughout its extent. The liver and gall bladder appeared normal. Palpation and inspection of the stomach were unrewarding. Within the mesentery, a firm nodule was felt. This was removed. The abdominal wall was closed in layers, and stay sutures were employed. The patient's postoperative course was uneventful except for the presence of a small stitch abscess which healed promptly. The abdominal pain never reappeared after laparotomy. It was interesting that a mild eosinophilia, 5 - 7% appeared initially at that time. Multiple stool and sputum examinations were negative. A week after the operation, the patient was asymptomatic and appeared to be in good health.

The specimen removed at operation was a firm nodule, approximately 5x4 cm. in diameter. The cut surface revealed a central gelatinous area. The zone surrounding the central area of necrosis consisted of dense, firm tissue, apparently fibrous tissue. Microscopic examination revealed the ova of *Paragonimus westermani*. The adult worm was not found, and it is felt that the adult was probably present in the central gelatinous material described above. Because of this finding, a course of emetine was administered postoperatively.

XVII. Epidermolysis Bullosa - Lt. Jean Kennedy, AFNC, 35th Station Hospital, APO 25-6



Epidermolysis bullosa is a disease of the skin or associated structures, probably of hereditary origin, characterized by the development of vesicles and bullae on the minimum of trauma. The condition was first described by Von Hebra in 1870, but not until 1886 was the name "epidermolysis bullosa" given.

Three essential types are most commonly referred to:

- (1) epidermolysis bullosa simplex
- (2) epidermolysis bullosa dystrophica, dominant form
- (3) epidermolysis bullosa dystrophica, recessive form

Epidermolysis bullosa simplex is usually first noted in infancy, with the bullae and vesicles forming at points of trauma. The bullae are formed in the horny layer, or in the prickle cell layer of the epidermis. In this type, the hair, nails, and mucous membranes are normal and the bullae may cease at a later age. The simplex type is strongly hereditary.

Epidermolysis bullosa dystrophica, dominant form is intermediate in severity between the simple form and recessive type. The bullae are located between the corium and epidermis. The mucous membranes are involved, teeth and hair normal, but nails thickened and clawlike.

Epidermolysis bullosa dystrophica, recessive type, is present at birth or appears soon after. The bullae are located between the corium and epidermis. Minimal trauma causes lesions. They are frequently present on mucosal and conjunctival areas. The bullae may form on the lips, mouth, tongue, and possibly the larynx and pharynx. The nails in this type are also deformed and clawlike.

Reports of various cases have attempted to differentiate between congenital and acquired forms. The onset of the acquired type usually occurs after the third year of life, but both types present the same clinical picture, which makes it difficult to differentiate.

The pathologic aspects of the disease are:

- (1) loosening and separation of epidermis from underlying tissue
- (2) decrease of elastic tissue in skin
- (3) presence of Nikolsky (outer layer of skin rubbed off by slight trauma)
- (4) little or no inflammatory changes

The pathologic changes fall under two theories. The vascular theory states that a hereditary abnormality exists in the vascular system of the skin, and the second theory assumes that the defect is in the elastic tissue primarily.

The case referred to is an infant, at present six weeks of age, and hospitalized since birth. The laboratory findings at birth were normal, but within 24 hours bullae formed on the body at places of trauma.

Constant good nursing care in epidermolysis bullosa is essential. The feeding of the infant is one of the important phases in order to increase the weight and prevent dehydration. The weight was six pounds at birth and present weight is seven pounds four ounces. Over the period of six weeks, there was a weight loss, but due to special formula and added vitamins, has gained satisfactorily.

Frequent check of temperature is necessary, even though the infant may remain afebrile for days. Elevation of temperature has occurred for a period of days, possibly due to a mild septicemia or dehydration.

Penicillin therapy has been given since birth for preventive measures, and sulfa therapy was started at the time of fever, for a period of days. Due to the formation of a few hemorrhagic bullae, vitamin K is given intramuscularly daily to combat hemorrhagic tendency.

At the sight of bullae formation and places of trauma, where they have ruptured, sterile dressings are applied, to prevent infection in the area. Large bullae have formed on the infants buttocks, knees, elbows, fingers and all places of irritation or trauma. Sterile vaseline gauze is applied and area wrapped with cotton padding to prevent further irritation. If possible the dressings remain on for several days to prevent added loss of serum but due to soiling some dressings have to be changed frequently. Great care must be taken to carry out a sterile technique to prevent secondary infection and possible septicemia.

The infant has been transfused with whole blood, and also serum albumen when the results of the total protein warranted additional serum.

Although the infant takes feedings well and continues to gain in weight, the skin condition remains the same. New bullae form each day and the routine procedures are carried out.

The prognosis for epidermolysis bullosa is fifty-fifty chance. At this time, no definite prognosis can be made on the infant.

REFERENCE: American Journal of Diseases of Children - Nov 49, Article: Epidermolysis Bullosa by A. Matheson, M.D. and David C. Rosner, M.D.

XVIII. Antepartum Hemorrhage - Lt. Ruth I. Lee, ANC, 35th Station Hospital, APO 25-6



Antepartum hemorrhage, which occurs shortly before the birth of a child or mole may be due to partial or complete separation of the placenta, or placenta praevia. There is an increased incidence of either separation of placenta or placenta praevia in habitual abortion cases. Vitamin C deficiency may predispose to either condition. The Rh factor apparently has no relation to either condition.

Placenta praevia occurs approximately in 1 out of 300 cases, according to Stander's statistics. Little is actually known concerning the etiology. Multiparity and endometritis, also close and repeated pregnancies, seem to have a bearing in the frequency of placenta praevia. In order to obtain the requisite supply of nutriment, it becomes necessary for the placenta to spread over a larger area of attachment, because such conditions limit the amount of blood going to the placenta. The older writers believed that the cause was due to the separation of a normally implanted ovum, which, falling to a lower portion of the uterus, contracted new connections instead of escaping through the cervix. This theory was accepted until 1888 when doctors found that it failed to explain the central variety; that such a minute ovum could delay sufficiently long to permit formation of attachments in the neighborhood of the external os; also that at the time of conception the uterus is normally anteflexed so that the region of the os is at a higher level than the fundus.

Hemorrhage, the most characteristic symptom of placenta praevia, usually occurs about the seventh month of pregnancy. Earlier than this the condition usually escapes proper diagnosis as the cause of abortion. Most commonly, the hemorrhage comes without warning when the patient is asleep. She awakens to find herself in a pool of blood. For diagnostic purposes the doctor usually does a sterile vaginal examination. Orders may be given for blood typing for donors for transfusion with the possibility of abdominal section. Very careful and consistent check on the fetal heart sounds and blood pressure is most essential. The amount, color and consistency of any bleeding should be carefully noted and recorded.

The prognosis is always serious. The danger to the mother is primarily hemorrhage, due to the direct result of the condition, or to deep cervical tears from too hasty or imperfectly dilated cervix, if delivered vaginally. Strict aseptic technique should be used in examinations as well as during operative procedures, as the patient is prone to puerperal infection. Fetal mortality is usually due to a premature child, or asphyxiation as a result of placental hemorrhage, or the child succumbs through attempts at extraction through an imperfectly dilated cervix.

The treatment depends upon whether the condition has been diagnosed early or late. Section or conservative treatment may be prescribed. If the condition has been diagnosed early, the pregnancy is usually terminated.

Premature separation is a normally implanted placenta, prematurely separated. The cause is misunderstood and actually unknown. Traumatism has been thought one cause, but this is generally exaggerated. The shortness of the cord has definitely been known to cause early separation. The older doctors laid much stress on profound mental emotion as cause, but this is now outruled. Toxemia is now being given upper consideration as a probable common etiological factor. Days, or even weeks before hemorrhage, there is often increasing edema, headache, rising blood pressure, increasing albuminuria, arteriolar spasms in the retina, and increasing blood uric acid. Through necropsy it has been found that eclampsia and premature separation of the placenta have similarity in pathological findings in the liver, kidneys, brain and other vital organs.

Infarctions are of two types; the anemic, which are not harmful, seen on the delivered placenta as white or yellowish spots on the margin, and the acute hemorrhagic, which are believed to be the cause of toxemia. The circulation of the placenta is gradually cut off, and the toxins from the necrosis of the vessels are absorbed by the mother. Toxemia follows through the maternal circulation. One can more successfully deal with loss of blood however, than basic toxemia with tendency to shock, which lessens the patient's ability to withstand trauma and surgical measures. With premature separation we may have concealed hemorrhage, with intense colic-like abdominal pain. On palpation, the uterus is board-like in consistency, and the outlines of the child cannot be distinguished. No fetal heart sounds can be heard. Attention must be paid to the character of the pain and the consistency of the uterus, as shock generally appears later. The prognosis of mortality for the mother is about 50%, and for the babies, 99% in concealed hemorrhage.

In external hemorrhage the pain is less severe and there is little enlargement of the uterus. The consistency may or may not change. The degree of shock is usually out of proportion to the loss of blood. The prompt evacuation of the uterus is encouraged. Hemorrhage due to a short cord is external. The fetal heart sounds suddenly become imperceptible. The placenta may separate prematurely and be delivered before the baby. This is called prolapse of the placenta. The mere delivery does not mean safety.

- REFERENCES: 1. Obstetrical Practice, H. F. Stander, 3rd Edit. 1945
 2. American Journal of Obstetrics and Gynecology, Vol. 57 #1, 4, 5
 3. De Lee's Obstetrics--Principles and Practice, Edit. 1947
 4. Practical Obstetrics--P. P. Bland and T. L. Montgomery, 1939
 5. Journal of Missouri Medical Association, 38:334, 1941

XIX. The Giant African Snail - Maj. K. E. Jones, MSC, Sanitary Engineer, Medical Section, General Headquarters, Far East Command



In 1803 the giant snail was first found in Africa where the natives utilized the flesh for food and the shells for ornaments. They were brought to India by a British explorer. Although the Africans considered snail stew and other snail concoctions a delicacy, the Indians did not, and the snails multiplied. In 1900 they were discovered invading Malaya tea plantations and in 1930 they were introduced into Singapore and subsequently into China. They were introduced into Java and Batavia in 1935 and 1936 respectively where they have since become a nuisance. From these areas the Japanese presumably imported the snails to Saipan where they were used as food for hospital patients.

Each individual snail is a fertile egg producer since each is a true hermaphrodite capable of producing both female and male eggs. An individual snail may lay up to 300 eggs in one batch and during the rainy season this may occur every two weeks. Mathematically (this figure is a conservative one) a single individual snail could be responsible over a five-year period of producing a population of 11 billion snails.

This snail has been found in abundance on Saipan and has now been established on Guam at Andersen Air Force Base, the Engineer Depot, Apra Harbor and in the Comnar Hill area. The infestation of stored materials on Saipan and Guam has been investigated. The growing infestation is of interest to the United States as well as other areas in the Far East Command inasmuch as there are approximately 100,000 measurement tons of excess materials to be shipped to ports in the ZI and in the Far East Command.



Preliminary tests conducted on Guam show that the snails cannot withstand cold temperatures, hot temperatures, or hydrocyanic fumigation. These tests have not been completely analyzed or recorded but they indicate that the snail cannot withstand below freezing or above 180 degrees Fahrenheit or a dosage of one pound of HCN per 1000 cubic feet. The test fumigation chamber that was used had a capacity of approximately 80 cubic feet and 50 snails were subjected to 3 ozs. of HCN for an exposure time of 17 hours. After 41 hours all snails were dead. Fifty snails were exposed to 3 ozs. of HCN for 5 hours and after 72 hours all the snails were dead. Fifty snails were immersed in water at 169 degrees Fahrenheit for a period of 5 seconds and after 24 hours all the snails were dead.

All equipment and excess property being shipped from the snail infested areas of Saipan and Guam are now being fumigated with hydrocyanic gas. Two Navy LSTs are being utilized as fumigation chambers. The materials and equipment to be shipped are fumigated in these improvised chambers, allowed to stand on a snail-free plot for a period of time sufficient to insure freedom from viable snails and dangerous HCN contamination, and then loaded onto cargo vessels.

Medical personnel have participated in this project through furnishing technical advice and guidance and principally in connection with the safety precautions to be applied in the use of HCN gas.

XX. Scrub Typhus

In the last issue of the Surgeon's Circular Letter (1 May 1950) there appeared several articles on scrub typhus. In one of these, "The Control of Scrub Typhus in Japan", the importance of preventive measures was pointed out and the various procedures to be applied were outlined. Since the publication of this article, the infecting agent of scrub typhus has again been demonstrated to be present in the Camp McNair and Fujino-Susano maneuver areas. The isolation of these organisms was reported by the 406th Medical General Laboratory to have been made from rodents and mites collected in those areas during the period 17 to 22 April of this year. These findings indicate the presence of a very definite hazard from scrub typhus to troops maneuvering in these areas during the coming months. In Japan, endemic scrub typhus foci are known to exist in Niigata, Yamagata and Akita Prefectures, as well as in the more recently described areas of Camp McNair and Fujino-Susano. There is no assurance, however, that foci of this disease are limited to these areas. In fact, it is quite likely that there are other infected areas in Japan, and quite possible that troops in the field may encounter them.

The only effective measures now available for the prevention of scrub typhus are terrain control (of limited applicability) and personal protection through the use of clothing impregnation with miticides and by the application of insect repellents which also kill mites. These procedures have been outlined in the Surgeon's Circular Letter for 1 May 1950, and are also described in detail in TB MED 31 and in Eighth Army Circular 14 for 1949.

Scrub typhus is an extremely important disease from the military point of view. During the recent war this importance was demonstrated in a most realistic fashion. The following extract from a paper on this disease by Cornelius B. Philip describes several of the outstanding experiences with scrub typhus during this period. This extract is taken from an article, "Tsutsugamushi Disease (Scrub Typhus) in World War II" 1, 2, published in The Journal of Parasitology, Volume 34, Number 3, for June, 1948.

".....Two episodes in the American Army in Dutch New Guinea and one in the British Army in Ceylon were especially notable because of the explosive results of relatively brief exposures. The epidemiology of these will be detailed later. Suffice it to say here that as a result of just 4 days of jungle exercise in Ceylon by a British Division, 756 patients were hospitalized, and the alarm created among the medical and general staff can well be visualized when "fever cases" by the hundreds reported to the dispensaries within a few days after return of the troops to their stations in India. American Task Force operations in the Schouten Islands resulted in a thousand cases in the first 2 months on Owi and Biak, reaching a total of 1,469 casualties in 6 months' time, while at Sansapor beach head the curve for weekly admissions on a thousand-per-year basis shot up to over 900 at the end of the second week, a rate higher for an individual episode than any yearly rate for all causes in the entire American Army in all theaters. In view of the strain on forward hospital facilities, and the severity of this disease, the noneffective curve for the Sansapor epidemic is indeed a prodigious one. The strain also on the few of us to whom the local units in both these outbreaks were looking for rapid help in control, will always remain a poignant memory of our Army activities. These two disasters alone provided a potential estimated loss of over 150,000 man days to the American Sixth Army.

"Fortunately, enemy action at Sansapor was almost nil. Otherwise the story would have been very dismal indeed, for the First Infantry Regiment went ashore and bivouacked on abandoned native village areas and gardens which must have been veritable "ant hills" of infected mites. Subsequent patients with multiple eschars were plentiful, including one with the almost unbelievable number of 9, and these were carefully distinguished from scrub-itch or other lesions and infected abrasions so frequent in troops in the tropics. Southcott has reported an Australian patient with 4 simultaneous eschars in North Queensland.

"Onset in the first patient at Sansapor, the Regimental Commander himself, was just 6 days after landing. In 20 days, 403 men of this regiment were hospitalized, including other key staff and noncommissioned officers--in addition to the commanding officer, there were the Executive Officer, the Chiefs of S1, S2, and S3, Headquarters Platoon Leader, Regimental Surgeon, Dentist, Liaison, Gas, and Orientation Officers, S4 of the 1st Battalion, 5 company commanders, and 13 lieutenants. Other scattering units of the task force were less heavily hit. This detail is given as an actual example of the disabling of a combat regiment as effectively as severe combat itself, for this could have been a strategic disaster for the beach head had the enemy been present in adjoining areas in force. Facilities of the 15th Portable and 29th Evacuation Hospitals were strained to the utmost to take care of this explosive outbreak. Attempts to evacuate patients in initial stages by flying boat were promptly discontinued, as unfavorable results quickly confirmed similar previous

experience....."

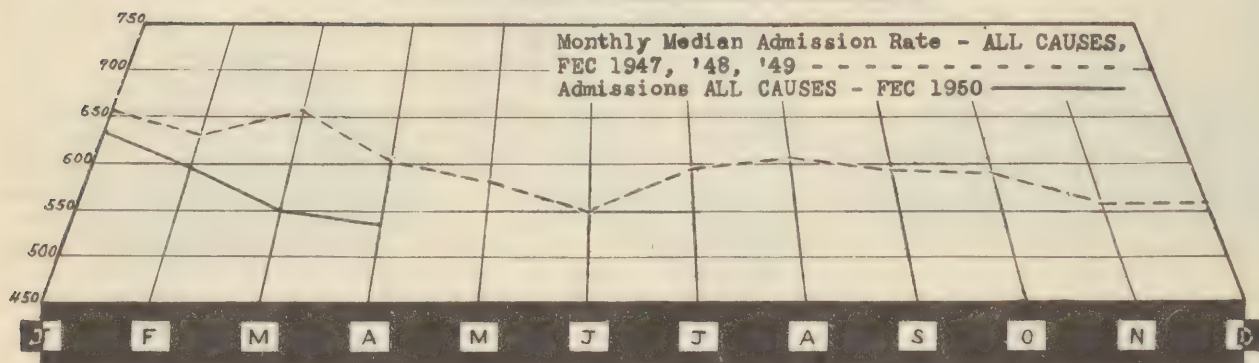
¹From the Rocky Mountain Laboratory, Hamilton, Montana, Division of Infectious Diseases, National Institute of Health.

²Presented 16 January 1948 before the New Society of Tropical Medicine as the twelfth annual Theobald Smith Lecture.

PART III

STATISTICAL

HEALTH OF THE COMMAND



Admission rates per 1000 troops per annum for the four-week period ending 28 April 1950 were as follows:

	FEC	JAPAN	MARBO	PHILCOM(AF)	RYCCM
All Causes	532	570	293	303	503
Diseases	482	521	237	264	443
Injuries	51	49	60	39	60
Psychiatric	7.9	7.9	1.5	7.1	11
Common Respiratory Diseases and Influenza	60	69	27	14	41
Primary Atypical Pneumonia	2.0	1.0	0	12	4.8
Common Diarrhea	3.5	3.5	1.5	3.6	4.1
Bacillary Dysentery	0	0	0	0	0
Amebic Dysentery	.52	.11	0	7.1	.69
Malaria, new	.09	0	1.5	0	0
Infectious Hepatitis	4.9	5.7	1.5	7.1	.69
Mycotic Dermatoses	1.4	1.5	0	0	2.1
Rheumatic Fever	.52	.68	0	0	0
Venereal Diseases	147	161	24	66	152

The rate of admission of Army and Air Force personnel to hospital and quarters is the lowest April rate so far recorded for the Far East Command. The admission of 6,100 patients for all causes for the four weeks in April gives a rate of 532 per 1000 per annum and compares favorably with the March rate of 550. The disease and injury components for the all causes admission rate were 482 and 51 respectively. The major commands experienced the following rates:

JAPAN	-	570	PHILCOM(AF)	-	303
RYCOM	-	503	MARBO	-	293

RESTRICTED

In April the average daily non-effective rate from all causes decreased from 16 for the previous month to an all time low of 15 per 1000. On an average day in April, the Far East Command had approximately 2,235 Army and Air Force troops non-effective from diseases and injuries.

DISEASES:

Common Respiratory Diseases and Influenza: The end of the so-called respiratory diseases season has been marked by continuing decrease in admissions for common respiratory disease and influenza from 86 in March to 60 in April. In comparison, the April rates for 1947, 1948 and 1949 were 207, 84 and 90, respectively. All major commands experienced a decrease in the admission rate for these diseases for April except MARBO whose rate increased from 14 in March to 27 this month, but is considered so low as to be insignificant.

Malaria: There continues to be practically no new malaria among military personnel in the Far East Command. MARBO reported the only case during the month, and that gives a Far East Command rate of .09. RYCOM and PHILCOM(AF) are the principal areas where malaria is a problem; however, RYCOM has reported only one case during the first four months of the year and PHILCOM(AF) has reported three. Although the peak season for malaria is yet to come, the present situation is considered exceptionally good.

Diarrhea and Dysentery: Admission rates for the intestinal diseases remain low. So far for 1950, admissions for these infections have not exceeded four per 1000 per annum on a monthly basis for the entire Far East Command. The highest rate for April for these diseases was experienced in PHILCOM(AF) with a rate of eleven (6 cases). In Japan, 32 cases were reported among Army and Air Force troops, a rate of 3.6 per 1000 per annum for the month. With the increase in this group of diseases among the Japanese, a greater incidence among occupation personnel may be experienced during the coming months. It is important that all medical officers be aware of this possibility and that applicable preventive measures be applied. It should be borne in mind that these infections are transmitted not only through food and water under conditions of unsatisfactory mess sanitation, but also by person to person contact. Thus, early diagnosis with segregation and adequate treatment of patients are extremely important factors in the prevention and control of dysentery and other enteric infections.

Scrub Typhus: On page 17 of this issue is an article on scrub typhus. The presence of endemic foci in Japan and the potentialities of the disease are a hazard to troops in the field. Medical officers, particularly those in Japan, should familiarize themselves with the characteristics of scrub typhus including its diagnosis, treatment and prevention. Reports of suspected and confirmed cases should be made promptly to the Chief Surgeon, FEC, through the appropriate major command surgeon.

Venereal Diseases: The all venereal diseases rate for the Far East Command increased from 136 in March to 147. The increase is attributed to the white troops component thereof which rose from 129 to 144. The colored component had a notable decrease from 201 for the past month to 169 for April. In the major commands, all except Japan experienced an appreciable decrease. RYCOM's colored component, which for the past several months has been a strong contributor to the high rate, decreased from 243 for March to 159 this month. In Japan, the rate increased from 141 for March to 161 for April. The white component increased from 135 to 158 and the colored component decreased from 199 to 188. The Far East Command's average daily venereal diseases non-effective rate for the month was 0.14 per 1000 per day.

NON-BATTLE INJURIES AND DEATHS:

The non-battle injury admission rate increased from 49 for March to 51 for April. Sixteen deaths among Army and Air Force personnel were reported for the month, three of which resulted from diseases, and 13 from injuries.

Evacuation:



Tabulated below are the number of patients evacuated from the major commands to the ZI during the four report weeks in April and the number of patients awaiting evacuation as of 28 April 1950:

	BY AIR	BY WATER	TOTAL	PNTS AWAIT EVAC
JAPAN	211	28	239	68
MARBO	1	0	1	0

RESTRICTED

	<u>BY AIR</u>	<u>BY WATER</u>	<u>TOTAL</u>	<u>PNTS AWAIT EVAC</u>
PHILCOM(AF)	16	19	35	1
RYCOM	<u>24</u>	<u>13</u>	<u>37</u>	<u>46</u>
FEC	252	60	312	115

Evacuations of military personnel per thousand strength for the period of 1 April to 28 April were as follows:

JAPAN	1.9	PHILCOM(AF)	4.1
MARBO	0.0	RYCOM	1.6
FEC	1.8		

Hospitalization:

The bed status as of 28 April 1950 was as follows:

	<u>Total T/O Beds Authorized</u>	<u>Total T/O Beds Established</u>	<u>Total T/O Beds Occupied</u>
JAPAN	4,600	4,127	1,501
MARBO	200	200	91
PHILCOM(AF)	1,250	1,250	485
RYCOM	<u>750</u>	<u>409</u>	<u>224</u>
FEC	6,800	5,986	2,301

The percent of T/O beds and established beds occupied as of 28 April 1950 was as follows:

	<u>Percent Authorized T/O Beds Occupied</u>	<u>Percent of Established Beds Occupied</u>
JAPAN	33	36
MARBO	46	46
PHILCOM(AF)	39	39
RYCOM	30	55
FEC	34	38

PROFESSIONAL MEDICAL FILMS

A series of three new films on atomic warfare has just been received in the Far East Command. The series is entitled "MEDICAL EFFECTS OF THE ATOMIC BOMB" and the films are as follows:

PMF 5058 Part I--Physics--Physical Destruction--	32 min
Casualty Effects	
PMF 5148 Part II--Pathology and the Clinical Problem	37 min
PMF 5149 Part III--Medical Services in Atomic Disaster	28 min

All of the films are in color and the subject matter is handled in a superior fashion. Part II is suitable only for medical audiences and is restricted to them. Parts I and III, although Professional Medical Films, can be used to good effect in general training and are authorized for showing to general audiences.

Part I covers the basic physics involved in the bomb and contains an excellent animation of the fission process. It also deals very well with the blast and the thermal effects and the general medical problems.

Part III shows an atomic bombing of an American city with its attendant chaos and destruction. The necessary relief organization and procedures are dramatically depicted.

Attention is invited to the caption for the picture shown on page 16, Surgeon's Circular Letter, 1 May 1950, which mistakenly indicated that the photo was taken in the immediate vicinity of the Tokyo General Hospital. This picture was taken on a small island in Tokyo Bay several miles from the Tokyo General Hospital. The workers pictured are Japanese personnel of the Insect and Rodent Control Division of the Tokyo Central Municipal Public Health Department and were not under Army supervision or control.

IN THIS ISSUE

	<u>PAGE</u>
Antepartum Hemorrhage.	14
Army Civilian Intern Program	2
Army Medical Department Hospital Management Program.	5
Eosinophilic Granuloma of the Rib.	10
Epidermolysis Bullosa.	13
Heads Dental Division.	4
How Long Must the Patient with Viral Hepatitis Remain in Bed.	12
Investigation of Deaths.	1
Organization of the Medical Section.	1
Professional Medical Films	20
Rabies, The Physician's Dilemma.	8
Recent Department of the Army and FEC Publications	5
Recommended Practices for the Control of Poliomyelitis	6
Reduction in Training Programs	3
Reserve Officer Volunteers for Duty at Leper Colony.	4
Scientists Discuss New Building Plans.	5
Scrub Typhus	17
Statistical.	18
The Control of Communicable Diseases	4
The Giant African Snail.	15
Trematode Infection (Paragonimus westermani)	12
Uniform Standards Established for Medical Corps Officers Participating in the Intern and Residency Training Programs.	2



The Chief Surgeon extends an invitation to all personnel of the Medical Department to prepare and forward, with view to publication, articles of professional or administrative nature. It is assumed that editorial privilege is granted. Copy should be forwarded so as to reach the Medical Section, GHQ, FEC, not later than the 10th of the month preceding the issue in which publishing is desired.

Major Vincent I. Hack, Editor

